DOCUMENT RESUME

ED 178 050 IR 007 791

AUTHOR Pearson, Margot; And Others
TITLE The Development of Film Material and Testing Procedures to Assess Students' Interpersonal Skills.
INSTITUTION New South Wales Univ., Kensington (Australia). Tertiary Education Research Centre.
REPORT NO TERC-50
PUB DATE Oct 77
NOTE 40p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Curriculum Development; *Instructional Films; *Interpersonal Competence; Interpersonal Relationship; *Material Development; *Measurement Techniques; Medical Education; *Medical Students; Videotape Recordings

ABSTRACT

This paper reports the development of a testing procedure using film stimulus materials to assess the interpersonal skills of first-year medical students at the University for New South Wales enrolled in the Introductory Clinical Studies (ICS) course, which is designed to encourage students to be aware of the complexities of human relationships and improve their own skills. Topics covered include the use of film and video material, vignette and material development, pilot testing, assessment procedures, a program designed to evaluate the previous year's materials and procedures, and the test finally developed to measure students' interpersonal skills. Appendices include the description of a possible approach to assessing ICS by videotape, and three student response sheets for film and videotape testing. (CMV)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED178050

RESEARCH AND DEVELOPMENT PAPER No.50

ISSN 0313-5543

THE DEVELOPMENT OF FILM MATERIAL AND TESTING PROCEDURES TO ASSESS STUDENTS' INTERPERSONAL SKILLS

Margot Pearson, T.E.R.C., U.N.S.W.
Paul McNeill, Community Medicine, U.N.S.W.
Christopher Magarey, School of Surgery, U.N.S.W.
John Powell, T.E.R.C., U.N.S.W.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
J.P. Powell
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

October, 1977

T200 1791

1. Origins and Rationale

In 1974 a new course, Introductory Clinical Studies, (ICS), was introduced in the Medical Faculty at the University for New South Wales for all year I Medical students. The course was designed to encourage students to be aware of the complexities of human relationships in the practice of medicine, including their own relationships with others. This course was innovative in its aims and subject matter and in teaching method as all work was in small groups.

A traditional approach to doctor-patient relations has been described as follows:

> Because he is confronted with a succession of clients, many of whom are seen in some distress, a doctor must not allow himself to become too emotionally involved in any one case. To do so may impair his technical judgement. Furthermore, because he sees a large number of patients in a day, he must be able to "switch off" after seeing one in order to be ready for the next. This professional demeanour of the medical man is sometimes misread as cynicism; in fact, it is more accurately described as a professional detachment which enables him to apply specialised technical skills to the problem in hand with the greatest efficiency.[1]

ICS was introduced to encourage a quite different approach. The objectives of the course in 1976 were defined as follows:

> that students would be better able to:
>
> (a) analyse the processes of communication they observe;
> (b) communicate effectively with other people;
> (c) understand the ways in which they affect other people and other people affect them;
> (d) respond appropriately to expression of emotion;
> (e) appreciate and accept differences in social values and attitudes of others;
> (f) work effectively with others in a team;
> and (g) appreciate their roles as student members of the medical profession in a changing society.[2]

Since the course was new and there was little previous experience to go on, the need was pressing to evaluate its progress and effectiveness and a variety of approaches have been used to meet this need. This paper reports on one of these: the development of a testing procedure using film stimulus material, to assess the interpersonal skills of the students. As the main focus of ICS is on human relationships in medicine, and especially the need for doctors to establish empathy and to respond to the emotional needs of patients, it was important to attempt to assess the development of these skills in students. It was anticipated that student learning in ICS would

be complex and involve changes, peculiar to individual students, in attitudes and values. The instrument being developed does not cover all such "learning". Moreover, the instrument was initially developed as a means to test the effectiveness of the programme as a whole. The question asked was, did the students as a group learn to improve their ability to communicate? It is hoped to begin looking at the validity of individual scores by correlating them with an independent measure of interpersonal skills in 1977.

2. The Use of Film or Video Material

The proliferation of videotape recorders (VTR) in recent years has led to their increasing use in teaching at the teritary level. They have proved useful tools in many professional programmes where effective interpersonal interaction is important. Rather than learning on the job, the student can practise skills with simulated clients by looking at videoed role plays or by viewing controlled encounters with actual clients. In teaching, the prospective teacher practises necessary skills one at a time in microteaching programmes.[3] In psychiatry videoed material has been used extensively to improve both patients' self-awareness and the skills of therapists.[4]

In general medicine VTR has proved a useful adjunct in the increasing number of programmes that have aimed to teach interviewing skills and, more broadly, interpersonal skills, in the USA, Britain and Canada. The growth of such programmes is based on an awareness that a poor interview will not lead to an accurate diagnosis, even of organic disorders. Nor will a patient be likely to follow through with after care where no rapport is established.[5]

Many of these new programmes are structured around the use of VTR to replay to the student interviews conducted by themselves or others, followed by small group discussion. On video the students can see all the communication activities, verbal and nonverbal, that are so important in an interview.[6] However, the way in which the interviewing skills are taught, along with video or film material, varies and the effectiveness of the different techniques is not clearly established. Attempts to assess such programmes have produced conflicting results. Some of the problems involved are discussed in a brief review of the literature on teaching interviewing by Ward and Stein.[7]

2.1 Assessment Using Video or Film Material

Where VTR or filmed material is being used to teach interviewing or interpersonal skills to students, efforts have been made to test the students' learning with such material. One approach is to video a student with a real or simulated patient and have that interview rated by a group of judges according to some rating schedule.[8]

Another approach is to have films of interviews that are stopped at crucial points at which the students choose, from a given set of alternatives, the best response to the patient in that situation.[9] One example of this type of test is that of Enelow, Adler and Wexler.[10] This group developed a series (Programmed Instruction in Medical Interviewing) of films of interviews which are stopped, choices presented and the consequences of the different choices shown. In the test situation the interview is stopped nine times and three alternatives given, but the consequences are not shown.

A further example of the use of video or film for testing is the instrument developed by Kagan and associates in conjunction with their work on Interpersonal Recall Process. This instrument is the Affective Sensitivity Scale which has been tested as a predictor of empathy skills and used to measure change in sensitivity as a result of training experiences. For the Affective Sensitivity Scale, the examinees watch a series of short vignettes and after each they respond in a forced choice format, selecting responses that are felt most likely to be what one of the participants in the encounter is really saying to himself at the end of the scene.[11]

There are problems associated with all of the methods of assessment discussed so far. Particularly difficult is determining how successful such tests are as predictors of a student's actual performance on the job. It is possible for students to be able to be perceptive in discussing taped interviews and interview skills, but not perform well themselves.[12] Kagan allows that while affective sensitivity as he defines and tests it, is a necessary precondition for being an effective counsellor, it is possible for someone with a high ranking on the scale to be an indifferent counsellor.[13]

The preceding discussion and associated references deal with the psychiatric interview, the general medical interview and that of the counsellor. The skills referred to range from those prosaic ones of history taking to establishing empathy. No effort has been made to separate out the various strands as the types of interviews and skills overlap a great deal depending on the people involved, the type of programme and the view of the function

of a doctor assumed to be desirable.

2.2 Medical Student Attitudes

The literature on the use of video or filmed material to teach or assess the interviewing or interpersonal skills of medical students has been reviewed briefly. However, it is possible that the more relevant area to review is that of medical students' attitudes. ICS is concerned to foster attitudes and values that are the reverse of those expressed in the traditional approach to doctor-patient relations cited earlier in this paper. Since the 1955 study by Eron of medical students' attitudes and the effect on these of their medical education there have been many studies of attitudes in relation to medical professionalisation.

Rezler,[15] in discussing different methods used to assess the attitudes of medical students, reviews studies using both direct and indirect (disguised) methods. Direct methods, such as questionnaires and attitude scales, suffer from the fact that the respondents know what is being assessed. Indirect methods (or projective techniques) try to overcome this defect by administering the test in conditions that camouflage the purpose of the test so that the respondent cannot anticipate the 'correct' response. There are various tests designed to do this. Some are similar to the test discussed in this paper although they do not use video or film material. Rezler discussed two such tests where a written vignette was presented and the student replied by choosing from alternative courses of action in a multiple choice format, or gave a free response. In the case of the free response test, the responses were then scored by giving points for any response which fell into four categories that were considered acceptable.

Another test that is closer again to the one being reported here is the Physician-Patient Situation Test.[16] This test consists of 35 typical physician-patient incidents in which a patient's comment to the physician and five possible responses are presented. The five possible responses represent five categories that are deemed independent. The categories are: evaluative, hostile, reassuring, probing and understanding. the last being seen as the most desirable type of response. Results from the use of this test show that students are better able to differentiate between responses than to use them in an interview, which accords with the results of other studies. At the end of the course, however, the students did show a grasp of a general concept of facilitative responding.

The Patient Situation Test, like the test being discussed, is an indirect measure. Both are assessing the ability to use a facilitative style of approach to patients or at least recognize the need to use such an approach. Neither the ability to respond in this way nor to recognise such a response is something that a student is likely to have without prior training of some sort.

Support for this contention comes from a study carried out by Phillips and Agnew to test Rogers' "Reflection' hypothesis. Using Rogers' definition of reflection as a type of response where the counsellor "...is trying to understand from the client's point of view and to communicate that understanding", Phillips and Agnew asked trained and untrained people to choose responses to a client in a hypothetical counselling situation. The results demonstrated that the untrained people did respond primarily in terms of non reflective choices (probing, interpretation, support etc.) while the trained people, though not necessarily adherents of the Rogerian school of therapy, responded more often in the reflective mode. Phillips and Agnew concluded that the skills being tested were "more than a simple extension of knowledge of interpersonal relations possessed by any reasonably intelligent and emotionally mature person".[17]

2.3 The Development of the Vignettes for ICS

The development in 1975 of a test using vignettes at the University of New South Wales was considerably influenced by the Kagan materials. They were being used at the University of New South Wales but found not completely satisfactory for use with Australian students. The Tertiary Education Research Centre was simultaneously developing the use of vignettes for staff development purposes. From these sources came the notion of developing a test of interpersonal skills of ICS students using their responses to video, and later film, vignettes.

A subsiduary goal was to produce film material for teaching purposes but this will not be discussed in this paper except to say that in the first year of work on the test the two goals were seen as complementary. The discussion of the materials centred as much around their use for teaching as for testing.

3. Procedure in 1975

Once the decision was made to use film or video material the task was twofold: to develop such material and to decide how to use it for

assessment.

In May 1975 three vignettes, one about a tutor and a group of students, and two about doctor-patient contacts, were shown to first year medical students. The evaluation of this material led to the production of more vignettes and to an attempt to evolve criteria for the assessment of student responses.

Early work on assessment and the format of the response sheet for students taking the test concentrated on two aspects: recognition of emotional states by using verbal and nonverbal cues, and giving an appropriate response to a situation. Assessment was conceived partially as establishing an "observational skill checklist" with which to rate responses.

Three questions were devised for each vignette:

1. Imagine you are the Doctor and complete the table below by describing briefly any behaviour by the patient that may occur to indicate that the patient (student) is experiencing emotion, attempting to block communication or seeking an opportunity to communicate.

EVIDENCE OF EMOTION (State the manifestations then indicate the likely emotions)	

EVIDENCE OF BLOCKING COMMUNICATION (if any) BY PATIENT	
BY DOCTOR	

EVIDENCE OF SEEKING TO COMMUNICATE (if any)	

2. What do you think the patients' (students') needs are in this situation?

3. a) Suggest an example of what the doctor might do and/or say that you would consider an appropriate and helpful response.
   b) Explain why you think this response would have the effect you desire on the patient (student).

The rationale for each question is set out in Appendix I which reproduces a document summarising the approach first used in 1975.

The problems involved in using this approach became clear when questions were matched with the video vignettes (now five in number) selected from a large number produced that year. It was found that the three basic questions did not apply to all five situations. In the case of one vignette it was felt necessary to write separate questions just for that scene. As a result the response sheet was modified for October 1975 (Appendix II) and the test administered to all year 1 medical students. Out of five scenes, three had questions that asked for observations as well as responses, one scene required the student to explain a response already given in the vignette, and one scene required the student to respond to an identified emotion.

The rating schedule likewise varied according to the scene although the basic format was similar. Responses were rated according to awareness of feelings and needs and the appropriateness of suggested responses. The initial emphasis on observation was shifting to an emphasis on awareness that presumed the ability to pick up verbal and non-verbal cues.

The results of the trial of the test (five scenes) in October 1975 encouraged us to develop the test further and to try to test its validity. Extra vignettes were chosen and two tests of overlapping content were produced on film, and the response sheets were also re-designed for 1976 (see Appendix III).

All the difficulties involved in the test material and the test questions were not clear at that point. It was felt that we should use what looked to be a promising format in an actual test situation to find out if indeed it measured anything and to test different groups to see how discriminating it was.

4. The 1976 Pilot Project

In 1976 the test procedures were further refined and new film material produced according to the guidelines established while developing a new rating schedule and criteria. A variety of groups were tested and the internal

consistency of the test established.

4.1 Test Material

The test developed for use in 1976 consisted of two series (Test A, Test B) of six film vignettes, three of which were common to both films. The vignettes dealt with interactions between doctors and patients, teachers and students, and a nurse and a patient.

The students were asked to respond to the vignettes by replying to the questions on the response sheet (see Appendix III). These questions, as in the 1975 trial, required the students to write down what emotions they had observed and how they would respond and why, for each vignette in turn. In 1976 however, the questions for each vignette were more uniform, only one scene being very different.

4.2 Testing Procedure

It was decided in 1976 to test a variety of groups in an effort to validate the test. Test A was given to the following groups:

i half the students (year I Medicine) at the beginning of the year.
ii all available students at the end of the year.
iii the tutors in ICS at the beginning of the year.
iv a group of experts who were academics or in the helping professions (doctors, psychologists or social workers) with a reputation for being able to establish empathy with other people.
v a group of health professionals who had not been trained in empathic skills.
vi a group of fourth year medical students after they had completed their courses in introductory medicine and surgery, which had included instruction in communication with patients and history taking.

Test B was given to:

vii the other half of the students (year I Medicine) at the beginning of the year.

It was hoped to answer the following questions:

a) Did the test discriminate between the skills of groups iii and iv and the students who were assumed to be less skilled?

b) Were the skills being measured such that they would naturally grow with experience and maturity?

c) Was any gain in scores from pre-test to post-test due to practice?

d) Was the test able to measure any change in skills over a year?

The responses of the tutors were also gathered to be used in improving the rating schedule.

4.3 Development of the Rating Schedule

To develop the rating schedule three of the research team began by looking at a sample of 50 response sheets, 24 of which were from tutors and 26 from the students' pre-test. At first we tried to use an elaborated version of the rating schedule developed in 1975 but this was soon seen to have serious difficulties for assessment purposes.

i The schedule was elaborate because an effort was made to give credit for all the different combinations of observations and alternative responses. This in turn was because the very richness of the answers which were produced by an open-ended format was seen as having value. However, since no one person covered quite the same area, it was very difficult to standardize the rating without penalising some people.

ii As mentioned earlier, the questions were not the same for each vignette and some were more directive than others. These questions strongly affected the answers and introduced unintended biases along with the uncertainty that lack of evidence of empathy might sometimes be the result of misreading the instructions.

iii By giving value to richness of observations and variety of emotions recognised it was all too likely that the student with greater written verbal ability was given undue credit.

iv In rating responses the raters were involved in making judgments that were subjective. The more elaborate the schedule and the greater the number of judgments a rater was called on to make, the more likely it seemed that subjective bias would affect the results.

Therefore it was decided in early 1976 to simplify the rating schedule. In each scene the raters would rate the affective response of a respondent on a single scale; the other material was used to help interpret the response where appropriate. The rationale for this was that correct observation of

the filmed patients' or students' behaviour, and awareness of the patients' or students' emotional needs, were prerequisites for responding empathically Furthermore, this standardized the questions and rating for each vignette (see Appendix 1V).

The difficulties of correctly interpreting the significance and implications of a short statement in direct speech led us to continue asking respondents to explain their response in the new format now being used.

4.4 The Rating Scale

The main question to be answered in developing the rating scale was what constituted an appropriate response. By working through the sample responses together we developed guidelines for rating the responses for each vignette in Test A. The guidelines for rating the responses in each vignette were then summarized into a general set of criteria which were seen to express explicitly the values which the course was designed to foster. These criteria in turn gave the five categories of responses forming a rating scale as follows:

0. Rejection of the patient or avoidance of the truth.
1. No empathy. No acknowledgement of the emotion or feelings expressed by the patient.
2. Empathy demonstrated. Feelings of the patient acknowledged (at least implicitly) but without any attempt to explore or allow vent to feelings.
3. The patient invited in some way to explore, express or give vent to his feelings, but with clear limits imposed on the type of feelings or their method of expression.
4. The patient encouraged to express whatever feelings he wants to express, even if this might lead to some difficulty or embarrassment for the doctor.

Each category is allocated a score of 0 to 4 and it is the sum of the score given by each rater that produces the respondent's score for a vignette.

Once the criteria and scale were established the sample of 50 response sheets was jumbled and rated independently by the three raters. The scores of the tutors and students for each vignette were then compared to find out which scenes were effective discriminators. The results of this analysis bore out the experience of the raters that the least discriminating were the most difficult to rate.

4.5 Further Development of the Film Material

Of the six scenes used, three were found to discriminate adequately whereas the other three did not. The reasons for this varied.

i One vignette showing a tutor and students evoked high scores from many students and lower scores from many tutors and it was apparent that the respondents were involved in strong role identification.

ii One vignette showing a patient and a nurse evoked confused and conflicting responses, indicating that the vignette was too ambiguous.

iii One vignette was poorly acted as the actor/doctor gave many negative non-verbal cues that biased responses.

Out of this review of the vignettes in relation to the test, and discussion of tutor and student criticism of the test, came a set of criteria for making suitable scenes as follows:

1. The content in the mind of the key figure must be clear, e.g. by some preliminary discussion with another figure or by some other preliminary activity.

2. The need to deal with affect must be clear, e.g. the affect must be seen to be getting in the way of dealing with content or the affect makes termination of the encounter difficult.

3. The key figure must remain neutral and uncommitted in dealing with affect or content in any particular way so that the respondent (viewer, examinee) has no cues as to any particular response. In particular, the key figure must avoid any obviously inappropriate behaviour or comment.

4. The scene must start slowly so that viewers are able to orientate themselves.

5. The scene must finish abruptly with as little interaction as is necessary for the client (patient, student, etc.) to indicate their affect and concern.

During 1976 new vignettes were made to satisfy these criteria and incorporated in the test film for 1977.[18] The development of the new film material in 1976 was a reversal of the procedure applied in 1975. The early rating schedules were devised to rate responses to existing vignettes whereas now vignettes were being made to meet the needs of the rating schedule. The

scheme for rating developed in early 1976 demanded vignettes where the need for an affective response was so clear that purely informational, cognitive responses could not be deemed at all appropriate.

Such vignettes needed to be very unambiguous. The subject, in order to respond as the Doctor, needed to know the facts of the case so that the giving of alternative versions of the case would clearly indicate a desire to avoid confronting the emotions involved. For example, one vignette in 1976 showed a doctor coming in to talk to a young man whose mother had just been operated on. The man asks, "She's alright isn't she?" The doctor does not reply - end of scene. Many students responded by telling the man that his mother would recover. Is that avoidance of discussing death, false reassurance, or a genuine misinterpretation? Such ambiguity had to be removed before the responses could be rated satisfactorily.

It was this fresh look at the film material which finally made clear that the type of material suitable for teaching purposes was not suitable for testing. Ambiguity makes vignettes potent teaching material but poor test material. This conclusion accords with that of Levit in a different but related area. She produced films for teaching and testing clinical diagnosis and states that "the testing film differed fundamentally in both its objectives and its approach from the film produced for teaching purposes." [19]

5. Assessment Procedures in 1976

The work on the rating scale, the format of the test and the film material, were in themselves satisfying results from the trial project in 1976; however, we wanted to try to assess the various groups' and the students' performance on pre- and post-test to try to answer the research questions set out earlier in 4.2

5.1 The Rating of Responses

The three vignettes that had been established as sufficiently discriminatory, one of which was common to test A and test B, were rated. These vignettes showed a doctor speaking to the son of a dying patient, a woman expressing anger at a doctor's diagnosis of scabies, and a man expressing doubts about the doctor's clinical judgement.

The response sheets of all respondents from groups i - vii were randomised and coded and each vignette was rated separately. Four raters, the original three who developed the scale and one other who was working on an evaluation of the ICS programme and familiar with the values of ICS, trained themselves and rated the responses to the three vignettes according to the guidelines already established for each vignette.

The score for each response was the sum of the ratings given by each rater. The range of possible scores was from 0 to 16 for each vignette.

5.2 Analysis

Table 4

Mean Scores of Groups Tested

	Scene 6[1]	Scene 1A	Scene 3A
Pre-test students	5.3 (143)[2]	6.0 (70)	4.6 (78)
Post-test students	6.6 (143) $p \leq 0.001$	7.0 (70)	6.1 (78)
Absent students	5.5 (86)	6.4 (54)	5.5 (52)
Test B students	----	7.5 (57)	6.5 (65)
Tutors	13.0 (24)	12.4 (23)	11.4 (25)
Experts	11.6 (11)	12.3 (11)	10.6 (10)
Non-experts	6.7 (13)	6.0 (13)	6.4 (13)
4th year students	5.9 (36)	7.1 (33)	5.1 (34)

1. Scene 6 was common to Test A and Test B.
2. Numbers in brackets give group size.

Comparisons of the mean scores of the different groups tested established that:

1. The test did discriminate between the interpersonal skills of groups iii and iv (tutors and experts) and the students.

2. The skills being tested could not be assumed to be something that would come with maturity and experience as groups v and vi did not do significantly better than the students on pre- or post-test. This result accords with the study mentioned earlier (2.2).

3. The gain in scores by students from pre- to post-test was not a result of practice as students doing vignette 1A and 3A for the first time in the post-test did not do significantly worse. Nor were

these results confounded by the sizeable group of students who took the pre-test but not the post-test (absent students) as this group did not perform significantly differently on the pre-test.

4. The statistical significance of the differences between the pre-test and post-test scores was determined using the t-test. They were highly significant ($p \leq 0.001$). Thus the test did measure a small but significant change in interpersonal skills from pre-test to post-test. Overall the test was seen to be internally consistent; those who were expected to do better did so. It also did seem to be measuring changes in the interpersonal skills of the students, though whether this was due to ICS was not determined.

5.3 Rater Reliability

A further analysis was undertaken to establish inter-rater reliability. The reliability was calculated using Ebel's technique[20] on the ratings for vignette 6. The inter-rater reliability co-efficient calculated was 0.85.

Experience showed that the best way to achieve such inter-rater reliability was for the raters to train on the responses together until all felt confident and then proceed to rate all the responses independently but at that time.

6. The 1977 Programme

The 1977 programme has been designed to investigate further the worth of the materials and procedures used in 1976.

6.1 The Test Instrument 1977

The test now consists of six vignettes of which three are new, and one is altered. The respondents, as before, are shown the vignettes one at a time and asked to respond in the space provided for a free response (see Appendix IV). Following this, the respondents are given a response sheet containing questions about biographical data and a place to respond to a repeat of three of the vignettes, but this time using a forced choice format for each vignette.

6.2 Forced Choice Responses

It was decided for 1977 to test the feasibility of a forced choice format. If such a format could be developed it would make the test standardised and usable by other groups. It was also felt that the open-ended responses could

be biased in favour of the tutors and experts who would have a better idea, from experience, of what might be appropriate responses.

The alternative responses in the forced-choice section are drawn from previous responses to the vignettes and represent each of the categories on the five-point scale for each vignette. The student chooses that alternative which he considers most appropriate and is scored accordingly from 1 to 5 (replacing 0 to 4).

6.3 Procedure

1. The pre-test was administered to all Year 1 medical students in groups of 60 over a four day period. These groups correspond to their tutorial days for ICS during the year. In 1977, following recommendations arising from the evaluator of the course in 1976, ICS is structured differently. Students meet in groups of 60 one day of the week with a team of 6 tutors. This team of tutors and a consultant work out the programme in advance for their group which may meet as a group of 60 or, as usually, in small groups of 10 to 12. The result of this arrangement is that each group of 60 students is following quite different programmes so that the ICS experience is not a constant for all 248 students.

2. The pre-test was also administered to two tutorial groups of Physics I students. Physics I students were chosen as being most like Medical students in previous training and ability. The groups are being offered a small payment when they complete the post-test in order to eliminate volunteer bias.

3. The tutors also took the pre-test.

4. The post-test will be administered to all the above groups in September 1977.

6.4 Analysis

In 1977 the analysis will be concerned primarily with comparing the scores of the control group (Physics I students) with the Medical students on the post-test. It will also be possible in 1977 to check for significant differences by sex, age and varying ICS experiences among the four groups of 60 students. An analysis will also be undertaken of the smaller tutor groups (each of 10-12 students) to see if there is any correlation between tutor

scores and tutor programme and group scores. Between-vignette correlations will also be possible.

6.5 Validity of Individual Scores

Using tutor ratings of students as an independent measure, a check will be made of the validity of the individual scores. As yet the test has been checked only as measuring group progress.

7. Discussion

As a result of two trials a test has been devised that measures some of the interpersonal skills of medical students. Specifically it measures the appropriateness of responses to a client, written or chosen (open-ended or forced choice format), after viewing a filmed, simulated interview. The response given indicates whether the student has made progress towards fulfilling the objectives of ICS that students be better able to:

- analyse the processes of communication they observe
- understand the ways in which they affect other people and other people affect them
- respond appropriately to expression of emotion. (Responses deemed to be appropriate are indicated by the weighted categories in the rating scale.)

As previously discussed the test is not testing superior ability to give what the student believes the tester wants. There are no cues in the written material to enable the student to 'read off' the appropriate response. Nor is the appropriate response obvious from general experience. Cultural norms would probably encourage the giving of responses rated 2 (1976 scale) on the scale; for those trained in the traditional doctor-patient relationships, 0 or 1 type responses might seem 'right'. If the forced choice format is shown to be feasible in the 1977 trial, then a test can be constructed that does not depend on verbal or written ability either.

The simplifying and standardizing of the test reviewed in this report has resulted in responses to patients only, rather than observations of the patient's emotional state, being rated. The student, in choosing a response, indicates his ability to recognise appropriate responses to emotions expressed by patients and indicates his attitudes towards doctor-patient relationships and his views of the role of a doctor. The test is not concerned with the specialist details of psycho-therapist competency, nor with predicting

behaviour in an actual interview situation since:

a) the test has been devised for first year medical students who will undergo many other experiences before they confront patients;

b) these students are training for general medical practice not psychiatry or counselling.

The test in its open-ended format can produce much useful information about any group of students for diagnostic teaching purposes. Once the forced choice format is developed and the individual scores validated, then the test should prove useful and economical for the testing of the development of interpersonal skills of medical students and the attitudes relevant to doctor-patient relations.

ACKNOWLEDGEMENTS

Work on this project is being assisted by a grant from the Educational Research and Development Council.

Statistical assistance for 1977 has been given by Tim Sowerbutts.

REFERENCES

1. Anderson, D.S. & Western, J. (1976) "The Professions: Reason and Rhetoric" in Boreham et al. The Professions in Australia: A Critical Appraisal. Brisbane: University of Queensland Press, p. 49.

2. Magarey, C.J. "Evaluation of Introductory Clinical Studies (ICS) in 1976". Unpublished Report, University of N.S.W., p. 3.

3. Clift, J.C. & Malley, J.I. (1974) Bibliography of Microteaching with Selected Annotations. Wellington, N.Z.: University Teaching and Research Centre, Victoria University.

4. Kenny, B.L. (1969) Annotated Bibliography on Television and Videotape in Psychiatry. Jackson, Miss.: Department of Psychiatry, University of Mississippi Medical Center.

5. Maguire, P. & Rutter, D. (1976) "Training Medical Students to Communicate" in Bennett, A.E. ed. Communication Between Doctors and Patients. London: Oxford University Press, pp. 47-74.

6. See for examples: Meadow, R. & Hewitt, C. (1972) "Teaching Communication Skills with the Help of Actresses and Video-tape Simulation". British Journal of Medical Education, 6: 317-22; Secundy, M.G. & Katz, V. (1975) "Factors in Patient/Doctor Communication: A Communication Skills Elective". Journal of Medical Education, 50: 689-91; Waldron, J. (1973) "Teaching Communication Skills in Medical School". American Journal of Psychiatry, 130: 578-81.

7. Ward, N.G. & Stein, L. (1975) "Reducing Emotional Distance: A New Method to Teach Interviewing Skills". Journal of Medical Education, 50: 605-13.

8. See for examples: Anderson, J. et al. (1970) "The Definition and Evaluation of the Skills Required to Obtain a Patient's History of Illness: The use of Videotape recordings". Postgraduate Medical Journal, 46: 606-12; Barbee, R.A. et al. (1967) "The Quantitative Evaluation of Student Performance in the Medical Interview". Journal of Medical Education, 43: 238-43; Goroll, A.H. et al. (1974) "Teaching the Clinical Interview: An Experiment with First-Year Students". Journal of Medical Education. 49: 951-67; Jarrett, F.J. et al. (1972) "Measuring Interviewing Skill". Canadian Psychiatric Association Journal, 17: 183-88; Turner, E.V. et al. (1974) "Predictors of Clinical Performance". Journal of Medical Education, 49: 338-42.

9. Muslin, H.L. et al. (1968) "Research in Medical Education. Research and Learning in Psychiatric Interviewing". Journal of Medical Education, 43: 398-404.

10. Enelow, A.J. et al. (1970) "Programmed instruction in Interviewing. An Experiment in Medical Education." Journal of the American Medical Association, 212: 1843-46.

11. Kagan, N. & Krathwohl, D.R. (1967) Studies in Human Interaction. East Lansing: Educational Publication Services, Michigan State University; Danish, S.J. and Kagan, N. (1971) "Measurement of Affective Sensitivity: Towards a Valid Measure of Interpersonal Perception". Journal of Counselling Psychology, 18: 51-54.

12. Jarrett, F.J. et al. (1972) op.cit.; Ware, J.E. et al. (1971) "A Negative Relationship Between Understanding Interviewing Principles and Interview Performance". Journal of Medical Education, 46: 620-22.

13. Kagan, N. and Krathwohl, D.R. (1967) op.cit.

14. Eron, L.D. (1955) "The Effects of Medical Education on Medical Students' Attitudes". Journal of Medical Education, 30: 559-66.

15. Rezler, A.G. (1976) "Methods of Attitude Assessment for Medical Teachers". Medical Education, 10: 43-57.

16. Rasche, L.M. et al. (1974) "Evaluation of a Systematic Approach to Teaching Interviewing". Journal of Medical Education, 49: 589-595.

17. Phillips, E.L. and Agnew, J.W. (1953) "A Study of Rogers 'Reflection' Hypothesis". Journal of Clinical Psychology, 9: 281-84.

18. It is worth comparing these criteria with the guidelines given in Fisch, A.L. (1972) "The Trigger Film Technique". Improving College and University Teaching, 20: 286-89.

19. Levit, E.J. (1969) "Testing Physicians with Motion Pictures". Industrial Photography, 18: 20-2, 61-5.

20. As per use of the Ebel formulas in: Guildford, J.P. (1952) Psychometric Methods. 2nd Ed., Tokyo: McGraw Hill - Kogakusha, pp. 395-98.

NOTE: This paper was presented to the ANZAAS Congress, Melbourne, August 1977.

APPENDIX I

A POSSIBLE APPROACH TO ASSESSING I.C.S. BY VIDEOTAPE 1975

Three questions which may be posed to student viewers are described here. Each question is accompanied by a statement of its aim, and a very brief discussion of how it could be answered and scored (in the most general terms). Each vignette will only be shown once.

QUESTION 1:

IMAGINE YOU ARE THE DOCTOR. WATCH THE VIDEOTAPE CLIP THEN COMPLETE THE TABLE BELOW BY DESCRIBING BRIEFLY ANY BEHAVIOUR BY THE PATIENT THAT MAY OCCUR TO INDICATE THAT THE PATIENT (STUDENT) IS EXPERIENCING EMOTION, ATTEMPTING TO BLOCK COMMUNICATION OR SEEKING AN OPPORTUNITY TO COMMUNICATE.

EVIDENCE OF EMOTION. (State the manifestations then indicate the likely emotions).	

EVIDENCE OF BLOCKING COMMUNICATION (if any) BY PATIENT BY DOCTOR	

EVIDENCE OF SEEKING TO COMMUNICATE (if any)	

AIM: This question aims to test the student's ability to OBSERVE and RECOGNISE significant non-verbal communications.

ANSWERS/SCORING: A thorough list of significant non-verbal cues could be prepared for the markers, and these classified by the examiners according to the three interest areas i.e. emotions, blocking and seeking communication. (any 'ambiguous' cues should also be specified, i.e. cues which may be difficult to classify definitely because of insufficient development of the situation depicted on the tape.)

Marks could be awarded for:

i) Each non-verbal communication correctly classified.
ii) Each emotion 'correctly' identified.
iii) Each ambiguous cue identified (regardless of how it is classified), if such cues are contained in the video sequence.

QUESTION 2:

WHAT DO YOU THINK THE PATIENT'S (STUDENT'S) NEEDS ARE IN THIS SITUATION?

AIM: The aim of this question is to test the student's ability to accurately interpret the verbal and non-verbal behaviours he has observed.

ANSWERS/SCORING: The student would be expected to identify two components of the patient's immediate need:

i) A physical component is a need for professional clinical treatment.
ii) An emotional component e.g. a need for communication, information, reassurance, sympathy, to have anxieties allayed etc.

Marks could be awarded for identifying each of the above components. Primary interest would lie in the student's awareness of the patient's (student's) emotional need in the situation.

QUESTION 3:

a) SUGGEST AN EXAMPLE OF WHAT THE DOCTOR MIGHT DO OR/AND SAY THAT YOU WOULD CONSIDER AN APPROPRIATE AND HELPFUL RESPONSE.

b) EXPLAIN WHY YOU THINK THIS RESPONSE WOULD HAVE THE EFFECT YOU DESIRE ON THE PATIENT (STUDENT).

AIM: This question aims to test the student's ability to devise an appropriate response to the perceived situation and to disclose the rationale behind his response.

ANSWERS/SCORING:

The rationale behind the response would be of primary interest in this question (part (b)). It would be expected that the student would demonstrate here that he understands the most likely impact his response would have on the other person, based on a general awareness of people's behaviour in such circumstances.

The response itself could be scored on how well it reflected the skills, attitudes and values encouraged by the course in how it recognises and meets the emotional needs of the patient (student).

APPENDIX II

RESPONSE SHEET 1975

Student's Name

Tutor's Name

FACULTY OF MEDICINE

UNIVERSITY OF NEW SOUTH WALES

INTRODUCTORY CLINICAL STUDIES 1

80.011

OCTOBER 1975

You will be shown five brief videotaped scenes showing interactions between two or more people. After watching each scene you will have between five and fifteen minutes, as indicated, to answer questions. Write your answers in the spaces after the questions.

Note: All scenes are acted by amateurs. You will be aware of this but when you are answering the questions try to imagine that you are actually involved in the situation.

SCENE I This scene shows a doctor and patient.
Imagine that you are the doctor. You will be given fifteen minutes to answer three questions.

Question one: As the doctor, what do you think the patient is seeking here?

Question two: As the doctor, what would you do or say that might help the patient?

Question three: Explain how you think your response would be helpful.

SCENE II This scene shows a group of students with a tutor. You will be given fifteen minutes to answer three questions.

Question One: What do you think the tutor is feeling at the end of this scene?

Question Two: What might the tutor have said to be more helpful in response to the first student who said "I can't do these problems"?

Question Three: Comment further on what is happening in this scene.

SCENE III This scene shows a doctor and patient. Imagine that you are the doctor. You will be given fifteen minutes to answer five questions.

Question One: What is the dominant emotion being expressed by the patient?

Question Two: What observations led you to this conclusion?

Question Three: As the doctor, what do you think the patient is seeking?

Question Four: Please turn over

Question Five: Please turn over

Question Four: As the doctor, what would you do or say next that might help the patient?

Question Five: Explain how you think your response would be helpful.

SCENE IV This scene shows a student arriving late for a tutorial. You will be given five minutes to answer one question.

Question One: Why do you think the late arrival of the student provoked this response from the tutor?

SCENE V This scene shows a male patient and a female doctor. Imagine that you are the doctor. You will be given five minutes to answer one question.

Question One: As the doctor, what would you do or say that might help the patient in his embarrassment?

APPENDIX III

RESPONSE SHEET 1976

UNIVERSITY OF NEW SOUTH WALES

FACULTY OF MEDICINE

INTRODUCTORY CLINICAL STUDIES - 1976

MEASUREMENT OF COMMUNICATION SKILLS

80-011

This test will take 50 minutes after you have spent 5 minutes reading the paper. You will be shown 6 brief scenes of actors playing the roles of doctors, patients, students, teachers or nurses. Imagine that the scenes are real. The film will be stopped for 8 minutes after each scene and during this time you will be expected to answer the questions printed on this paper.

Your answers will be marked according to the awareness that you demonstrate of different feelings and attitudes that the characters might have and the way in which your responses might encourage the characters to express these feelings. Make as many different points as you can, be as specific as possible and give alternatives to your suggestions.

STUDENT'S NAME:

STUDENT'S TUTORIAL GROUP NUMBER:

TEST A

SCENE 1 (A)

This scene is of a doctor and a woman with two children. You have 8 minutes to answer 4 questions.

What emotions do you think the woman is expressing?

What did you actually observe that led you to these conclusions?

The woman is communicating a number of different things. Say what you think they are.

If you were the doctor, what might you say at this point that might help the woman express these things more clearly?

SCENE 2

This scene is of an elderly man and a nurse. You have 8 minutes to answer 3 questions.

What do you think are the man's feelings and how does he perceive the nurse?

How do you think the nurse might respond in order to promote a satisfactory relationship with her patient?

Why do you think that this would be a suitable response?

SCENE 3 (A)

This scene is of a doctor and a patient with a disease on his hand. You have 8 minutes to answer 3 questions.

The patient is communicating a number of different things here. Say what you think they are.

If you were the doctor what might you say at this point that might help the patient express these things more clearly?

Explain why you think your response would be helpful.

SCENE 4

This scene is of a male patient and a female doctor. You have 8 minutes to answer 3 questions.

What do you think are the patient's feelings and how does he perceive the doctor?

What did you actually observe that led you to these conclusions?

How might the doctor respond at this point in order to begin helping the patient resolve his difficulties?

SCENE 5 (A)

This scene is of a group of students and a tutor.
You have 8 minutes to answer 3 questions.

What feelings do you think the tutor might have at the end of this scene?

What might the tutor have said that might have been more constructive after the first student said, "I can't do these problems"?

Explain why you think this response would have been more constructive.

SCENE 6

This scene is of a young man and a doctor.
You have 8 minutes to answer 3 questions.

The young man is communicating a number of different things here. Say what you think they are.

If you were the doctor what might you say at this point that might help the patient express these things more clearly?

Explain why you think your response would be helpful.

APPENDIX IV

RESPONSE SHEET 1977

DOCTOR PATIENT COMMUNICATION FILM

This exercise, which will take a little over half an hour, is designed to assess your ability to respond, as a doctor, to emotion expressed by a patient. You will be shown, in turn, six short scenes of a doctor and a patient and the film will be stopped after each scene.

Imagine that YOU ARE THE DOCTOR. Write down what you would do and/or say to the patient at this point. Be specific if you can and give reasons for your responses.

SCENE 1. Male doctor and female patient with breast symptom.

SCENE 2. Male doctor and male patient with abdominal pain.

SCENE 3. Female doctor and female patient with gall stones.

SCENE 4. Male doctor and male patient. Cortisone. (This scene is very short.)

SCENE 5. Female doctor, mother and two children with scabies. (This scene is very short.)

SCENE 6. Male surgeon, nurse and the son of a dying patient.